Docket Number: RN02087 Preliminary Amendment

PCT application date: June 26, 2003

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

- 1-14 (Canceled)
- 15. (New) A process for the synthesis of derivatives having a hydrofluoromethylenesulfonyl radical comprising the steps of:
- a) condensing in a solvent a sulfide of alkyl and a thiolate cation with a compound exhibiting a carbon of sp^3 hybridization carrying a hydrogen, a fluorine, a heavy halogen, selected from the group consisting of chlorine, bromine and iodine, and an electron-withdrawing group which is fluorine or a group having a σ_p value of at least equal to 0.2; and
- b) oxidizing in the presence of an aqueous phase; said solvent of stage a) being a water-immiscible solvent, an aqueous phases or a two-phase combination of a water-immiscible solvent and of an aqueous phase, said aqueous phase comprising at most 1/3 by weight of water-miscible nonaqueous solvent; with a ratio of the amount in equivalents of the alkyl sulfide to the amount in moles of water being at most equal to 50.
- 16. (New) (New) The process as claimed in claim 15, wherein the aqueous medium of stage a) further comprises a strong base with a pKa of the associated acid at least equal to 10, in an amount, expressed in equivalents, of at least equal to 5% of the amount of said thiolate.

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- 17. (New) The process as claimed in claim 16, wherein said amount of strong base is at most equal to one times the amount of said thiolate.
- 18. (New) The process as claimed in claim 16, wherein, in stage a), the solvent further contains a polar solvent with a molar ratio of the amount of said polar solvent, expressed in moles, to the sum, expressed in equivalents, of the cocations of the sulfide and of the base is at most equal to 1.
- 19. (New) The process as claimed in claim 15, wherein the electron-withdrawing group is fluorine or a Rf groups of formula:

EWG'-
$$(CX_2)_p$$
-

Wherein:

the X groups, which are identical or different, represent a chlorine, a fluorine or a radical of formula C_nF_{2n+1} , with n being an integer at most equal to 5, with the proviso that at least one of the X groups is fluorine;

p represents an integer at most equal to 2; and

EWG' represents an electron-withdrawing group.

- 20. (New) The process as claimed in claims 1 to 6, wherein the total carbon number of Rf is between 1 and 15.
- 21. (New) The process as claimed in claim 20, wherein the electron-withdrawing group is fluorine.
- 22. (New) The process as claimed in claim 15, wherein the ratio of the water, expressed in moles, to the cation, expressed in equivalents, is at least equal to 4.
- 23. (New) The process as claimed in claim 15, wherein said cation is monovalent.

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- 24. (New) The process as claimed in claim 23, wherein said cation is phosphonium, a quaternary ammoniums or an alkali metal.
- 25. (New) The process as claimed in claim 15, wherein stage b) is carried out either in the presence of a dissociated salt dissolved in the reaction mixture or by maintaining a pH within the range from 4 to 9, in order to obtain an acid halide.
- 26. (New) The process as claimed in claim 15, being carried out at a temperature at least equal to 80°C.